

FIG. 2

| Transducer    | Parameter                  | 4*(1-3)<br>100 Ω |
|---------------|----------------------------|------------------|
| Backing:      | Z (MRayl)                  | 2                |
| Metal         | Z (MRayl)                  | 30               |
| towards       | c (m/s)                    | 3750             |
| backing:      | 1 (μm)                     | 15               |
| Elem. a:      | Lsa(μH)                    | 6                |
|               | Cca(pF)                    | 100              |
|               | $Rlsa(\Omega)$             | 100              |
|               | Z <sup>D</sup> (MRayl)     | 14.06            |
|               | c (m/s)                    | 3569             |
|               | h (10 <sup>9</sup> V/m)    | 1.626            |
|               | €rS                        | 888              |
|               | l (μm)                     | 140              |
|               | Area (mm <sup>2</sup> )    | 3.0              |
|               |                            | (2 stk.)         |
| Metal         | Z (MRayl)                  | 20               |
| between       | c (m/s)                    | 3750             |
| sub-elements: | l (μm)                     | 15               |
|               |                            | (3 stk.)         |
| Elem. b:      | Lsb(μH)                    | 16               |
|               | Ccb(pF)                    | 100              |
|               | $RIsb(\Omega)$             | 100              |
|               | Z <sup>D</sup> (MRayl)     | 14.06            |
|               | c (m/s)                    | 3569             |
|               | h (10 <sup>9</sup> V/m)    | 1.626            |
|               | €Γ <sup>S</sup>            | 888              |
|               | l (μm)                     | 116              |
| :             | Area (mm <sup>2</sup> )    | 3.0              |
|               |                            | (2 stk.)         |
| Metal towards | Z (MRayl)                  | 30               |
| front:        | c (m/s)                    | 3750             |
|               | l(μm)                      | 15               |
| Transf. 1:    | Z (MRayl)                  | 8.04             |
|               | I/λ v/2.5MHz               | 0.25             |
| Transf. 2:    | Z (MRayl)<br>I /λ v/2.5MHz | 2.63<br>0.25     |
| L             | I / A V/Z.JIVII IZ         | 0.23             |



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FIG. 3

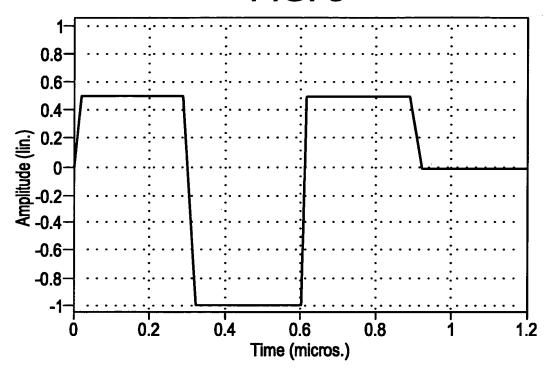
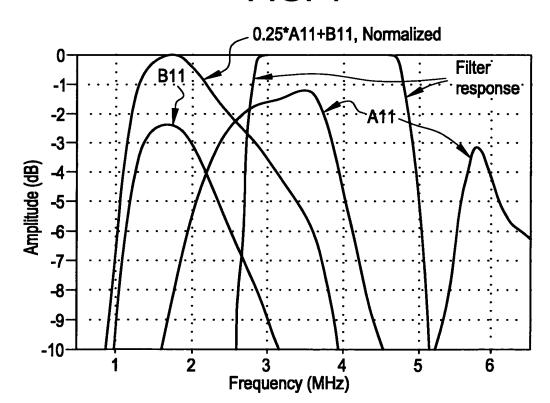
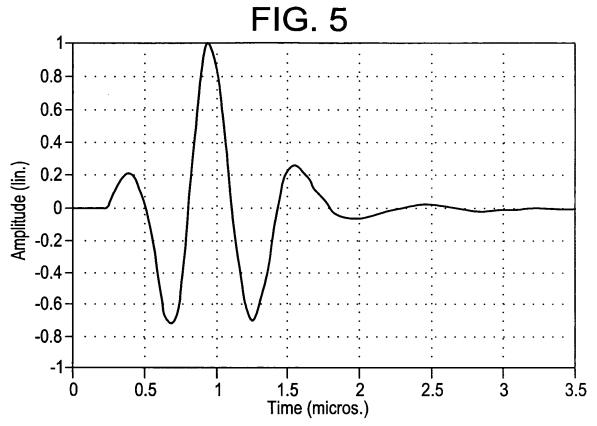


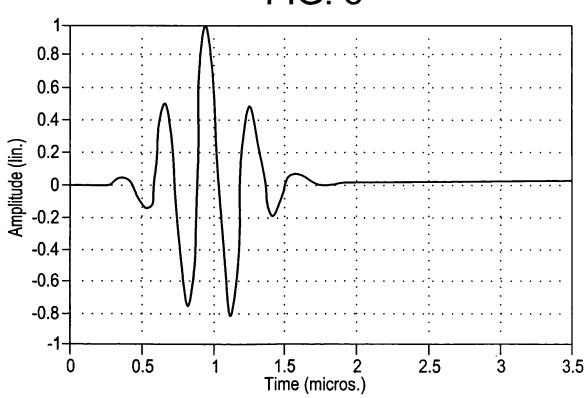
FIG. 4



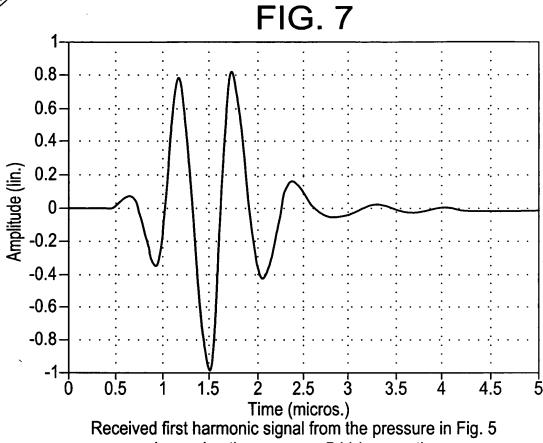




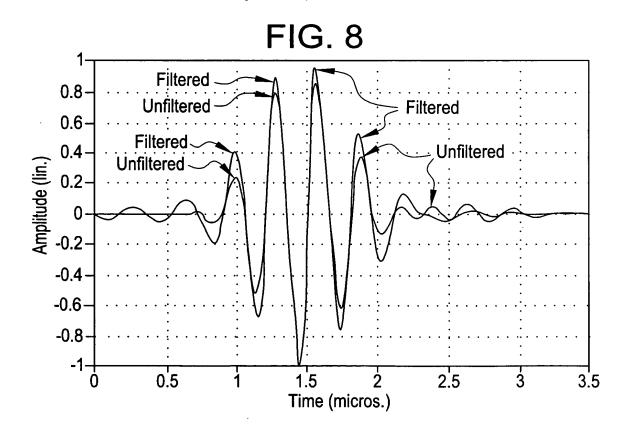






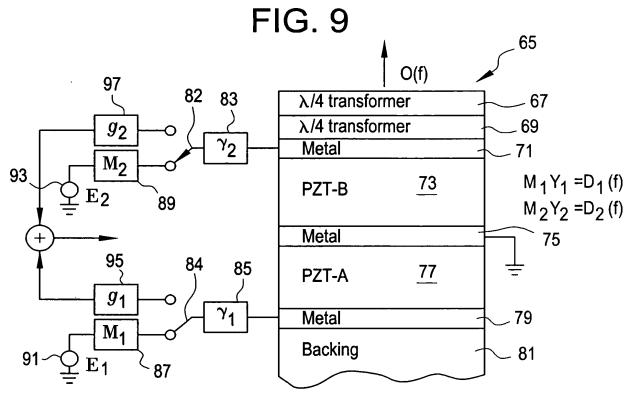


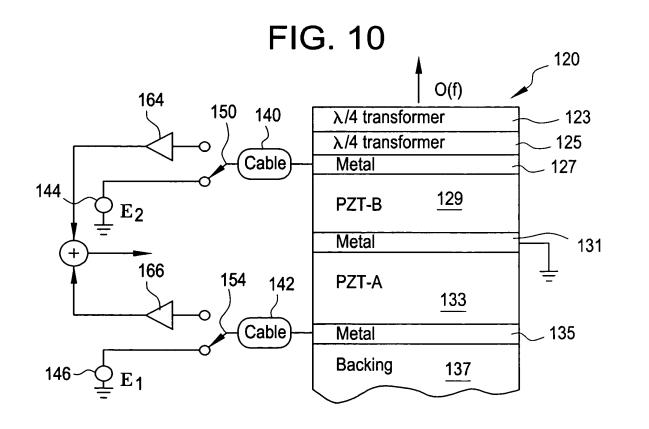
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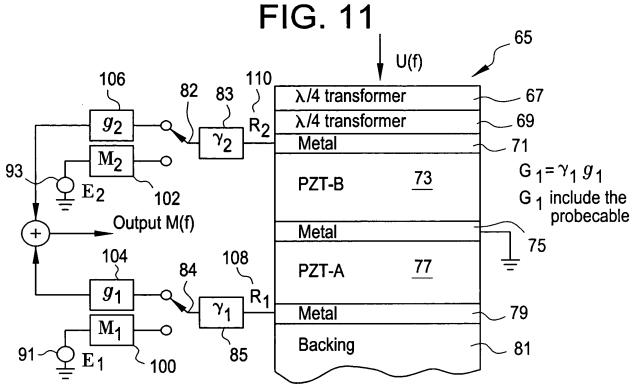
when using the response B11 in reception.

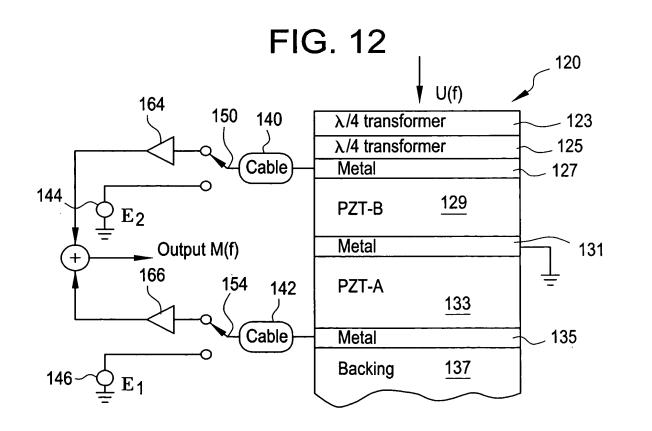














**ELEMENT NUMBER** Z  $g_{1N}M_{1N} \downarrow g_{2N}M_{2N} \downarrow$  $220\,\mathrm{N}_{\odot}$ 210 N FIG. 13 220 j 210 j \_ 205 į  $\mathbb{X}$ 

TO BEAMFORMING ARRAY CONFIGURATION WITH ELEMENT VARIABLE FILTERING